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EXAMINER

YAN, REN LUO

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2854

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,652

Applicant(s)

KASPER ET AL.

Examiner

Ren L. Yan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12-14, 16-18 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-14, 16-18 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Granger(3,709,147).

The patent to Granger teaches the structure of a fluid delivery device for a printing machine as claimed including a rotating roller 14 having a roller surface for carrying a fluid film, a metering element 61 having an edge for splitting the fluid film and a first concave surface 62 facing the roller surface, the metering element being movable with respect to the roller surface, wherein a thickness of the fluid film downstream from the metering element is half of an average distance of the concave surface from the roller surface. With respect to claim 21, Granger shows an ink supply container 37, a lower surface part of the ink control blade 61 that has a wider spacing from the cylinder surface to allow a thick ink film formed therein, and the cylinder surface contacting the ink supply container and the ink film before splitting exiting the ink supply container as recited. See Figs. 1 and 4, and column 4, lines 24-51 in Granger for details.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-9, 12-14, 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shriver(5,003,875) in view of Granger(3,709,147). The patent to Shriver teaches the method and apparatus of a fluid delivery device for a printing machine as claimed including a rotating roller 32, a fluid supply container 26 for supply a fluid film to the rotating roller surface, a metering element 150 having an edge for splitting the fluid film and a first surface facing the roller surface, and an adjustment mechanism 176-180 for moving the metering element 150 relative to the roller surface along a radial line from a center of the rotating roller. See Fig. 6 and the paragraph bridging columns 3 and 4 in Shriver for details. However, Shriver does not teach the first surface of the metering element 150 to be a concave surface. The patent to Granger teaches a fluid delivery device for a printing machine including a metering element 61 that has a concave surface 62 facing the rotating roller surface 14 and the curvature of the concave surface 62 has the same or very nearly the same radius as the roller 14. See Fig. 4 and column 4, lines 13-60 in Granger for example. It would have been obvious to those having ordinary skill in the art to provide the metering element of Shriver with the concave surface appropriately disposed as taught by Granger so as to accurately set the position of the concave surface with respect to rotating roller surface in order to achieve the desired fluid film thickness. Regarding claims 2 and 14, the metering element 150 of Shriver shows a second concave surface opposite the first surface as recited. With respect to claim 6, the metering element 150 of Shriver has a horizontal bottom surface as recited. With respect to claim 23, see the discussion regarding claim 21 above.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shriver in view of Granger as applied to claim 1 above, and further in view of John(5,044,277). Shriver, as

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modified by Granger teaches all that is claimed except for the concave surface being an arc of 10 degrees or more of the roller surface as recited. The patent to John teaches a metering element for fluid application for a printing machine cylinder having a concave surface facing the cylinder surface and the concave surface has an arc of 10 degrees or more of the cylinder surface as recited. See Fig. 1 in John for example. In view of the teaching of John, it would have been obvious to one of ordinary skill in the art to provide the metering element of Shriver, as modified by Granger, with a concave surface having an arc of 10 degrees or more of the roller surface in order to ensure the desired thickness of the fluid film is obtained.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shriver in view of Granger as applied to claim 1 above, and further in view of Dahlgren((3,664,261). Shriver, as modified by Granger, teaches all that is claimed except for the metering element being rigid. Dahlgren teaches in a fluid delivery device the conventionality of using a rigid doctor blade(same as the metering element). See column 5, lines 13-18 in Dahlgren for example. It would have been obvious to those having ordinary skill in the art to provide the fluid delivery device of Shriver, as modified by Granger, with a rigid metering element as taught by Dahlgren so as to achieve a controlled, uniform rate of fluid delivery as demanded by the printing layout.

Claims 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Granger in view of John. The patent to Granger teaches the structure of a fluid delivery device for a printing machine as claimed including a rotating roller 14 having a roller surface for carrying a fluid film, a metering element 61 having an edge for splitting the fluid film and a first concave surface 62 facing the roller surface, and the metering element being movable with respect to the roller surface. See Fig. 4 of Granger for details. However, Granger does not teach the concave

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surface being an arc of 10 degrees or more of the roller surface as recited. The patent to John teaches a metering element for fluid application for a printing machine cylinder having a concave surface facing the cylinder surface and the concave surface has an arc of 10 degrees or more of the cylinder surface as recited. See Fig. 1 in John for example. In view of the teaching of John, it would have been obvious to one of ordinary skill in the art to provide the metering element of Granger, with a concave surface having an arc of 10 degrees or more of the roller surface in order to ensure the desired thickness of the fluid film is obtained. With respect to claim 22, see the discussion regarding claim 21 above.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shriver in view of Granger as applied to claim 1 above, and further in view of Kistler et al(6,450,097). Shriver, as modified by Granger teaches all that is claimed except for the use of a reducer roll interacting with the rotating roller. Kistler et al teach in a fluid delivery device for a printing machine including a rotating roller 5 for carrying a fluid film on its surface, a metering element 4 having an edge for splitting the fluid film and being movable with respect to the roller surface, and a reducer roll 9 interacting with the rotating roller 5. See Fig. 1 in Kistler et al for example. It would have been obvious to those having ordinary skill in the art to provide the fluid delivery device of Shriver, as modified by Granger with the reducer roll appropriately disposed as taught by Kistler et al in order to further regulate the amount of fluid carried by the rotating roller to be transferred to the printing cylinders.

Applicant's arguments filed on 10-24-2005 have been fully considered but they are not persuasive. Applicant argued that there is no disclosure in Granger that a fluid film is formed, and due to the cell nature of the anilox inker, such a film on the outer surface seems unlikely.

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This argument appears to be purely speculative in nature and is contrary to the teachings of Granger. In the paragraph on lines 24-51 of column 4, Granger clearly teaches that the ink control blade 61 has an inner surface 62 that has the same or very nearly the same radius as the cylinder 14 and the ink control blade 61 is movably mounted relative to the cylinder 14 such that the position of inner surface 62 of ink control blade 61 can be accurately adjusted and the spacing can be read off the micrometer scale 71. Obviously, from this teaching, it should be clear to one of ordinary skill in the art that the inner surface 62 of ink control blade 61 is not adjusted to be in tight contact with the cylinder surface to prevent any ink film from leaving the reservoir, rather the adjusted spacing between the inner surface 62 and the cylinder surface as taught by Granger is intended to allow an ink film of a controlled thickness to be formed on the cylinder surface downstream from the ink control blade 61. From Fig. 4 of Granger, it is also clear that ink film thickness prior to reaching the inner surface 62 (at the lower section of the ink control blade 61) is several times greater than the spacing between inner surface 62 and the cylinder surface. Therefore, the thickness of the ink film downstream from the ink control blade must be at least half of an average distance of the concave surface of the ink control blade from the cylinder surface as recited.

Applicant also argued that the purpose of the curved section of Granger is to permit the reservoir to be properly sealed, not to provide any film splitting capabilities, and the anilox inker of Granger and can decorating apparatus of Shriver are completely different types of inking devices. The examiner's position is that the purpose of the curved section on the ink control blade 61 of Granger is not to seal the reservoir as alleged by the applicant. Based on the teaching of Granger as discussed above, the structural arrangement of the ink control blade 61 allows the

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curved section 62 of the ink control blade to be accurately positioned relative to the cylinder surface so that a desired spacing between the curved section 62 and the cylinder surface can be set to allow an ink film of a desired thickness to pass through the ink control blade 61. Furthermore, since both Granger and Shriver teach using ink metering blade elements to control the thickness of the ink film to carry out the printing operation, one of ordinary skill in the printing art would have looked to the teachings of both patents to gain insights and to make further improvements.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ren L. Yan whose telephone number is 571-272-2173. The examiner can normally be reached on 8:30am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ren L Yan
Primary Examiner
Art Unit 2854

Ren Yan
April 4, 2006